DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

A404358552

FACILITY: Dow Silicones Corporation		**SRN / ID:** A4043
LOCATION: 3901 S Saginaw Rd, MIDLAND		**DISTRICT:** Bay City
CITY: MIDLAND		**COUNTY:** MIDLAND
CONTACT: Amanda Karapas , Air Specialist		**ACTIVITY DATE:** 06/16/2021
STAFF: Gina McCann	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MEGASITE
SUBJECT: EU108-01		
RESOLVED COMPLAINTS:		

DOW Silicones/EGLE-AQD staff present during the inspection:

- Gina McCann (EGLE-AQD, Senior Environmental Quality Analyst)
- Amanda Karpas (DOW-Air Specialist)
- Taylor Byndon (108 Building Engineer)

Records reviewed as part of the inspection were:

- ROP Annual report for 2020
- 40 CFR Part 63 Subpart FFFF, MON MACT periodic report for 2020

EU108-01

- **Carbon adsorption system consisting of two carbon drums in series**
- **Hydrogen chloride (HCl) scrubber (tank 20734)**

Platinum catalyst manufacturing process. This emission unit is subject to the requirements of 40 CFR Part 63 Subpart FFFF. The most recent PTI for this emission unit is PTI 622-92-D.

This emission unit make three products. One product vents directly to the carbon totes and (2) two other products vent to the HCl scrubber and then the totes. Unit 8515 is the Platimum II production component and was not in operation at the time of the inspection.

Special condition (SC) IV.1. restricts operation of EU108-01 unless the carbon adsorption system is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the carbon adsorption system includes exhausting emissions directed to the system through two carbon drums connected in series and replacing activated carbon in the system based on the weight gain of the second of the two drums. A fresh drum shall be placed in the second drum position before the weight gain of the second drum exceeds 30 pounds over the "as received" weight of the drum. SC VI.2. is the associated recordkeeping requirement requiring records of carbon replacement for the carbon adsorption system to be maintained. The alarm setpoint is at 11.00 kilograms or 24.25 pounds. I viewed the operator logs showing replacement of carbon totes, during the inspection.

During the inspection we viewed the carbon adsorption system. There were two totes in place. SC VI.4. is the associated recordkeeping requirement for monitoring and recordkeeping the weight gain of the second carbon drum over its "as received" weight on a continuous basis. Continuous basis is defined as an instantaneous data point recorded at least once every 15 minutes. The local readout for the weight of the second carbon drum was near that of the readout in the control room at 6.9 kg. I viewed records from June 1, 2019 through June 15, 2021. The second drum was replaced before the weight gain exceeded 30 pounds over the "received as" weight of the drum.

SC IV.2. restricts production of Platinum II unless the HCl scrubber is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the HCl scrubber includes replacing the scrubbing solution before beginning each batch of Platinum II production. I viewed the operator run sheets when Platinum II was last produced, which coincided with replacing the scrubbing solution in the HCl scrubber. The operator signs off on the step once the bi-carb solution is transferred to the RAG tank.

SC I.2. limits VOC emissions to 0.07 ton per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. SC VI.1. and SC VI.3. are the associated recordkeeping requirements, which requires the plant to maintain batch production records in sufficient detail to demonstrate compliance with the emission limits. I viewed the 12-month rolling emissions data for the 12 -month rolling time period ending April 2021 and VOC emissions were 0.04 tpy.

Compliance Reporting

I reviewed the ROP Annual report for 2020 and 40 CFR Part 63 MON MACT periodic report for 2020. No deviations were reported for this unit.

NAME  DATE 06/22/2021 SUPERVISOR